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ABSTRACT

Current trends in women's access to higher education in Greece were studied. Attention was directed to recent differences in achievement by sex, as well as factors influencing success patterns in the national examinations taken at the end of secondary education. Data were obtained from a questionnaire distributed to a 10 percent random sample of secondary school graduates. A large increase in women's participation in university education was found for the last two decades. Higher upper-secondary school achievement scores were found for women than for men, while men had higher achievement scores on the national examinations. After the 1980 reform of the selection system, the rate of female admissions was proportionately equal to the rate of female applicants. In addition, women increasingly entered fields of study that traditionally were studied by men. Information is included on the fields of study chosen by women in 1960-1961, 1970-1971, and 1978-1979, along with mean achievement scores in 1981 for grades, 6, 9, 10, 12, the university entrance exam, and for university studies. (SW)

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Abstract

The objective of this study is to present current trends in women access to Greek higher education and to explain increased women access to higher education. The study examines recent differences in achievement by sex and discusses working hypotheses about factors influencing success patterns in the national examinations at the end of secondary education, the precondition for entrance in higher education.

The findings show that there has been a high increase in women participation in university education in the last two decades. Their distribution though still having the characteristics of orientation towards "female" occupations, has nevertheless been permeated by recent selection reform policies.

This has resulted in tendencies towards a more equal distribution of women in the various fields of study.

It is suggested that these developments are more a result of specific selection policies rather than changes in women achievement due to effects of social and economic factors.

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Women access in Greek higher education.

Dr. G. Polydorides

The objective of this study is to present current trends in women access in Greek higher education and to explain increased women success in higher education entrance examinations. The study examines recent differences in achievement by sex and discusses working hypotheses about factors influencing success patterns in the national examinations at the end of secondary education, the basic precondition for entrance in higher education.

The methods employed are descriptive and associative techniques to identify associations and derive hypotheses concerning the reasons which lead to increased women success in higher education in the last few years. An attempt is made to identify specific policy decisions concerning the national examinations which might have fostered the above results.

The study is based on data collected for a research project regarding the evaluation of the selection system for higher education; this data is derived from a questionnaire distributed to a 10 per cent random sample of secondary education graduates.

The questionnaire provided information by sex on the following sets of characteristics:

- achievement scores, in-school evaluation
- achievement scores, external (national) examinations
- individual characteristics (including sex, rank of birth and age)
- family characteristics (including socioeconomic background and geographic origin)
- school characteristics (including student-teacher ratios by subject, class size)
- previous achievement, cramming school attendance
- aspirations concerning fields of study in higher education.

The analysis of the data shows that:

- (1) women have higher achievement than men in upper secondary education when in-school evaluation is considered;
- (2) they have lower achievement than men in the external national examination;
- (3) women have equal success rates as men do at the entry point in higher education after the reform of the selection system in 1980 (an increase of the success rate from 46% to 54%).

The importance of this study lies on a specific evaluation system for higher education regarding achievement and success by gender which leads to useful considerations regarding decisions. Such considerations may prove quite important for policy making with respect to the selection system if the present trends of equality of access to higher education are to be maintained and may be expanded regarding access by field of study.

Women participation in university education rose rapidly in the last two decades (the sixties and the seventies) an increase which amounts to 70% as it is shown in Table 1. Their distribution continues having the characteristics of orientation towards "female" occupations (though may be less than in other countries). In Table 1 we observe that in most fields of study women participation has increased by a steady 50% (in the two decades).

Table 1. University Education: Women by field of study

Field of study	1960-61	1970-71	1978-79
Humanities	52,8	67,6	76,9
Fine Arts	37,6	53,9	58,1
Law and Political science	28,5	37,8	41,7
Economics	14,8	28,5	38,7
Science	19,6	23,1	29,0
Technology and architecture	11,4	12,5	15,7
Medicine	23,8	25,4	27,8
Agricultural science	5,9	13,8	27,0
Total	32,01	31,0	38,7

Sources: N.S.S.G., Statistics of Education, (issues of corresponding years).

Technology and architecture is excepted, having remained the most "inaccessible" field for women, and has reached a 38% increase. Medicine has remained fairly steady with a 16% increase in the same period. Women have on the other hand have considerable gains in economics (160% increase) and in agricultural science (350% increase), areas where they used to have very small representation.

The new entrance examination system applied for the first time in 1980¹ gave women more opportunities for access in higher education so that women successes were proportionately equal to women applicants, as it is shown in Table 2.

Table 2. Applicants and successes to university education, 1981.

	applicants (%)	successes (%)
women	54,5	54,6
men	45,5	45,4
total	100,00	100,0

Source: Research Project on the Evaluation of the Selection System for Higher Education (K.E.M.E., Greece), in progress.

This considerable increase of 41% achieved by the change in the selection system, has affected at the same time women access by field of study considerably. Table 3 presents the percentages of women successes by field of study for 1981.

Women access has increased at a rate close to the overall rate of increase (41%) in the fields of law and political science.

1. For a description of the examination system and its estimated effects on the educational opportunities of women see: Georgia Polydorides "Women participation in the Greek educational system", paper presented at the 1983 meeting of the American Educational Research Association, and cited in the January 1985 issue of the Journal Resources in Education (ED 247837).

Table 3. Successful applicants to University Education 1981.

field of study	% women	N	increase
Humanities	81.0	2,016	5%
Law and Political Science	76.4	1,946	44%
Economics	43.9	2,729	13%
Science	41.9	1,979	44%
Technology	26.9	1,234	68%
Medicine	47.2	502	110%
Agricultural Science	37.1	348	37%
Total	54.6	10,753	

Source: Research Project on the Comparison of achievement in the Entrance Exam. and Achievement in the University (G. Polydorides, Greece) in progress.

science and agricultural science, while the already overpopulated with women field of humanities increased only by 5%. Medicine and Technology, the fields less accessible to women so far, have experienced the greatest rate of women increase, so that women access to the first has doubled and to the second has achieved a decent percentage.

It is interesting to note in Table 4 that women scores in the entrance exam and in university courses have lower means (than men's) but they have also smaller variations a fact which guarantees them equal overall success at the university level. This success, however, has not penetrated equally the most desirable fields of study (medicine and technology) due to the differential distribution of exam scores for men and women.

Table 4. Mean achievement scores. Women successes, 1981.

achievement variables	all successes			women successes		
	mean	S	N	mean	S	N
university ²	6.14 ³	1.69	631	6.09	1.64	358
univ. entrance exam. ²	8547 ⁴	485	1115	8495	468	603
senior high (12 th grade) ²	18.06 ⁵	1.04	1115	18.08	0.97	603
senior high (10 th grade) ¹	17.44 ⁵	1.24	1036	17.52	1.18	570
junior high (9 th grade) ¹	17.53 ⁵	1.18	1036	17.55	1.18	570
primary (6 th grade) ¹	9.76 ⁵	0.51	1036	9.75	0.50	570

Sources: 1. Research project on the Evaluation of the Selection System for Higher Education (K.E.M.E., Greece) in progress.

2. Research project on the Comparison of Achievement in the Entrance Exam. and Achievement in the University (G. Polydorides, Greece) in progress.

3. Scoring up to ten.

4. Scoring up to 10,000.

5. Scoring up to 20,00.

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The factors which affect women achievement are not very different from those affecting men's. As we can see in Table 5, the coefficients of determination are quite small when considering factors others than attainment in school. And even those almost vanish when we examine the effect of school attainment on university achievement. It is interesting to notice though that women's achievement is more determined by family characteristics while men's achievement is more determined by personal characteristics. Furthermore, women's achievement is more determined by cramming school attendance than men's achievement is.

Table 5. Multiple regressions (R^2). Successes 1981.

Independent variables	men			women		
	university	entrance exam.	senior high	university	entrance exam.	senior high
achievement in school ¹	0.02**	0.51**	-	0.04*	0.49**	-
achievement in school ²	0.03**	0.29**	0.46**	0.03**	0.20**	0.48**
personal charact.	0.005	0.10**	0.10**	0.003	0.04**	0.07**
family character. ³	0.01	0.02*	0.03*	0.03	0.04**	0.05**
educational infrastr.	0.006	0.02*	0.005	0.009	0.02*	0.008
cramming school att. ⁴	0.02	0.02*	0.02**	0.02	0.02**	0.04**
cramming school att. ⁵	-	0.03**	0.01*	-	0.03**	0.02**

F **significant 0.01

F *significant 0.05

1. It includes all school achievement variables occurring prior to the dependent variable.
2. It includes school achievement variables through the 10th grade.
3. Father's and mother's occupation variables are expressed as dummies.
4. Independent variable measures refer to unit values per student.
5. Independent variable measures refer to totals per student.

Sources: 1. Research Project on the Evaluation of the Selection System for Higher Education. (K.E.M.E., Greece) in progress.

2. Research Project on the Comparison of Achievement in the Entrance Exam. and Achievement in the university (G. Polydorides, Greece) in progress.

But since school attainment appears as the main determinant of women's achievement in the examination total score and since achievement in school has always been somehow higher for girls compared to that of the boys² we can infer that the causes of women's increased access cannot be identified among those included as independent variables in the multiple regressions presented in Table 5.

We, therefore, formulate the proposition that it was due to the specific provisions and characteristics of the new system of selection rather than to any observable achievement, school or family factor to which increased women access may be attributed. And as such we identify the provision that the entrance exam. was at the same time considered as school leaving examination³ to which women had to participate in order to graduate from high school. So, under this provision, women who had achieved high exam. scores needed only to apply to a university field of study in order to be successful. Family intervention, which normally would have stopped them from entering the whole process of the entrance examination, could no longer have the same effect.

It is then quite clear that there can be an educational policy definitely affecting equality of opportunity of access in university education so far as gender is concerned. And it seems that Greek educational policy has achieved it without a stated goal at the outset of intending to do so.⁴

2. See OECD, Educational Policy and Planning, Educational Reform Policies in Greece. Paris, 1980.

3. See Georgia Polydorides (1983) op. cit.

4. It is our assumption that the obligation for general senior high school leavers participation in the joined school-leaving/entrance examination was meant to discourage a good proportion of the student population from attending the general education track and channel it to the technical and vocational education track.